

Patent Claims

1. A blade (1) for use in turbomachines, having a blade root, a platform region and a main blade part (3), which main blade part (3) has a blade length from a blade leading edge (4) to a blade trailing edge (5) and a blade height from the platform region to a main blade part tip, and which is formed from at least one base body segment (3b) and, in the region of at least one of the two blade edges (4, 5, 12), from at least one edge segment (3a, 3c) which is connected in a positively locking manner to the base body segment (3b),

characterized

in that the positively locking connection is produced by means of projections (7) which are formed integrally on one of the segments (3a, 3b, 3c) and are spaced apart from one another in the direction of the blade height, with the other segment (3a, 3b, 3c) at least partially arranged projecting in between the projections (7).

2. The blade (1) as claimed in claim 1,

characterized

in that the base body segment (3b) and the edge segment (3a, 3c) each have a plurality of projections (7) with recesses (8) between them, and in that the projections (7) arranged on one of the two segments (3a, 3b, 3c) project in a positively locking manner into the opposite recesses (8) in the other segment (3a, 3b, 3c), forming positively locking toothing.

3. The blade (1) as claimed in claim 1 or 2,

characterized

in that a pin-like holding element which runs in the direction of the blade edge (4, 5, 12) secures the segments (3a, 3b, 3c) against relative movements by virtue of this holding element

penetrating transversely through the projections (7) of both segments (3a, 3b, 3c).

4. The blade (1) as claimed in one of claims 1 to 3, characterized
in that the segments (3a, 3b, 3c) are made from different materials.

5. The blade (1) as claimed in one of claims 1 to 4, characterized
in that at least one segment (3a, 3b, 3c) is made from a particularly thermally conductive material.

6. The blade (1) as claimed in one of claims 1 to 5, characterized
in that at least one segment (3a, 3b, 3c) is made from a material which is resistant to high temperatures.

7. The blade (1) as claimed in one of claims 1 to 6, characterized
in that at least one segment (3a, 3b, 3c) is made from a ceramic material.

8. The blade (1) as claimed in one of claims 1 to 7, characterized
in that at least one segment (3a, 3b, 3c) is made from a metal and/or a metal alloy.

9. The blade (1) as claimed in one of claims 1 to 8, characterized
in that at least one segment (3a, 3b, 3c) is made from a plastics material.

10. The blade (1) as claimed in one of claims 1 to 9, characterized
in that the segments (3a, 3b, 3c) are coated.

11. The blade (1) as claimed in one of claims 1 to 10,
characterized
in that at least one segment (3a, 3b, 3c) has a cavity.

12. The blade (1) as claimed in claim 11,
characterized
in that the cavity (6) is filled with a material that is
different from the segment material.

13. The blade (1) as claimed in one of claims 1 to 12,
characterized
in that the blade is designed as a guide vane or as a rotor
blade.

14. A gas turbine having the blade as claimed in one of claims
1 to 13.